REMARKS

The Office Action mailed on August 31, 2009, has been received, and carefully considered.

Replacement drawing sheets for Figs. 5 and 6 are submitted, in which the reference numerals 23 and 29 are, respectively removed. No new matter has been added.

The objection to the specification is obviated in part by appropriate amendment, and traversed in part.

The Applicants could not find any paragraph numbering in the originally filed specification, and thus are uncertain as to which paragraph the Examiner is pointing out capitalization and punctuation errors. Clarification is requested.

The objections to the claims are obviated by appropriate amendment. New claims 7-12, corresponding to original claims 1-6 are submitted for consideration.

The rejection of claims 1-6 under 35 U.S.C. 112, second paragraph, is obviated by appropriate amendment.

It is believed that new claims 7-12 fully comply with the requirements of 35 U.S.C. 112, second paragraph.

Accordingly, the rejection of claims 1-6 under 35 U.S.C. 112, second paragraph, should be favorably reconsidered and withdrawn.

Claims 1-6 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Carosella (US 2,766,197) in view of Globus (US 3,106,451).

The Applicants respectfully submit that the cited prior art does not disclose or suggest Applicants' invention, as presently claimed. Reconsideration and allowance of the pending claims is therefore respectfully requested in view of the following remarks.

The Carosella reference discloses treatment of a slag obtained from the reduction in a manganese ore electric oven in an electric furnace. The slag has a composition of 38.4% Mn, 24.6% SiO_2, and 19.4% Al_2O_3. Etched at an ambient temperature with a return solution of 44g/l H_2SO_4, it produces a rich solution (32g/l Mn) with an etch performance less than 75%.

A slag is a material of a nature that differs much from that of the sludge from washing of the gases from silicate and ferro-manganese furnaces. Depending on their manufacturing, and the TTT cooling curves, it has a more or less vitreous or crystalline nature, with bonds of a certain ion nature that the products treated in the present application do not have. Therefore, both products react quite differently to the acid etch.

The Carosella procedure produces extractions below 30%, and is thus not a valid etch procedure for the purpose of the present invention, where the procedure is to: extract the Mn from the sludge by washing the production gases in a Si-Mn and Fe-Mn electric furnace, made up of a large mineral variety: MnO_2, MnO, beta-manganese silicate ($MnSiO_3$), natural products on the one hand (from the drift) and newly formed products on the other, such as beta-silicate and some oxides (as a result of a combination between $Mn(g)SiO(g)O_2(g)$). The etch performance is approximately 90% in the Applicants invention.

In the Globus reference, a mineral is sulfated that can be poor in pyrolusite with S and H_2SO_4 in a mixed reactor at a temperature of 200 to 300°C. The reaction takes 2 to 8 hours, whereas in the present invention between 30 and 60 minutes are used, and there is no need to use S. Furthermore, sulfur is more expensive than the appropriate sulphuric acid and at present, with the tremendous excess of acids, it is not of interest to use sulphur to attain the same goal. One of the alternatives to the excess of sulphuric acid is to convert it into sulphur, with is very expensive, and the reason why acid is used directly in the present invention.

Furthermore, the Globus reference states the advantage of the generation or savings in sulphuric acid, and that process control is delicate to get a good extraction performance.

None of the two patents mentions the problem of the organic matter, which in the etch with sulphuric acid produces an organic matter solution, turning it impure and hindering the filtering operations at a real plant, thus making the industrial process economically unviable. The present application resolves the problem for the sludge from washing from the gases of silicate and ferro-manganese electric furnace gases.

Consequently, a combination of the prior art cited by the Examiner does not make obvious Applicants' invention as set forth in the claims, as amended.

In view of the foregoing remarks, Applicants respectfully submit that the rejections under 35 U.S.C. 103(a) are unsustainable, and urge favorable reconsideration and withdrawal thereof.

It is believed that the present application is now in condition for allowance, and an early allowance to this effect is respectfully urged. If any final points remain that can be clarified by telephone, Examiner Ripa is encouraged to contact Applicants' attorney at the number indicated below.

Applicants hereby petition the Commissioner for Patents to extend the time for reply to the notice dated August 31, 2009, for one (1) month from November 30, 2009, to December

31, 2009. A Credit Card Authorization Form is attached to provide the necessary fee set forth in 37 C.F.R. §1.17 for this extension request.

Respectfully submitted

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